

**REMARKS**

Prior to the present amendment, claims 1-27 and 29 were canceled. By the present amendment, claims 28, 33, and 34 are amended, and claims 38-39 are added. No new matter has been introduced by these amendments. Accordingly, claims 28 and 30-39 are under examination.

**Rejections under 35 U.S.C. § 112, second paragraph**

On page 2 of the office action, the examiner rejects claim 33 under 35 U.S.C. § 112, second paragraph, as being indefinite. Applicants thank the Examiner for providing a claim amendment that will obviate the rejection. Applicants have amended claim 33 in accordance with the Examiner's suggestion. Accordingly, Applicants respectfully request that the rejection be withdrawn.

**Rejection under 35 U.S.C. § 112, first paragraph-Written Description**

On page 3 of the office action, the examiner rejects claims 28, 30-32, and 34-37 under 35 U.S.C. § 112, first paragraph for reciting new matter.

Applicants respectfully disagree. Merely in order to expedite prosecution, however, applicants have amended claims 28 and 34 to delete the term "organ formation." Accordingly, applicants respectfully request that the rejection of the claims under 35 U.S.C. 112, first paragraph be reconsidered and withdrawn.

New claims 38-39 are directed to "A method for increasing cell elongation during organ formation..." Support for the claims may be found throughout the specification. See,

for example, page 116, lines 9-27 (which states, *inter alia*, "Root length, a result by either root cells proliferation or elongation, can for example be increased by overexpression of for example...RKS4"); figure 11; the description of figure 11 on page 97 (which includes, *inter alia*, "RKS4 overexpression results in increases in flower and seed organ size that could be due to increase in cell elongation..."); figure 13; and the description of figure 13 on page 98.

**Rejection under 35 U.S.C. § 112, first paragraph- Enablement**

On pages 3- 6 of the office action, the examiner rejects claims 28 and 30-37 under 35 U.S.C. § 112, first paragraph, for lacking enablement. According to the examiner, the specification enables a method of increasing organ size, increasing the rate of cell division, decreasing organ size, and decreasing rate of cellular division.

Applicants have amended claims 28-32 and 34-37, which are directed to the methods that are deemed enabled.

The examiner, however, alleges that the specification does not enable a method for increasing or decreasing organ formation or a method for providing pathogen resistance to a plant or plant cell.

With respect to claim 33, which is directed to a method for providing pathogen resistance, Applicants respectfully traverse the rejection. Applicants submit herewith Exhibit A, which includes results and discussion regarding "Improved disease resistance conferred by the RKS4 receptor." The RKS4 described in the present application as having the nucleotide sequence as set forth in SEQ ID NO: 46 is identical to the nucleotide sequence

that was used to create the RKS4-OX overexpression lines (e.g., RKS4-OX1, RKS4-OX2, and RKS4-OX3), described in Exhibit A.

As described in Exhibit A, for example, on the first paragraph of page 1, plant cells were transformed with an RKS4 construct having the nucleotide sequence as set forth in SEQ ID NO: 46.

The plant cells transformed with RKS4 exhibited, *inter alia*, pathogen resistance to the following pathogens: the bacterium *Pseudomonas syringae*, the biotrophic fungus *Fusarium oxysporum*, and/or the Western Flower Thrips *Frankliniella occidentalis*. See, for example, second paragraph of page 1 and Table 1, rows RKS4-OX1, RKS4-OX2, and RKS4-OX3, and Figure 2, columns for GT5-A1 and/or GT5-A2, which each describe results from plant cells transformed with RKS4 having the nucleotide sequence as set forth in SEQ ID NO: 46.

Applicants will be submitting an executed Rule 132 Declaration that attests to the above facts. For the foregoing reasons, Applicants submit that a method for providing pathogen resistance is enabled by the specification.

With respect to claims 38-39, which are directed to a method for increasing cell elongation during organ formation, Applicants submit herewith Exhibit B, which includes results and discussion regarding “Improved organ size conferred by the RKS4 receptor.” The RKS4 described in the present application as having the nucleotide sequence as set forth in SEQ ID NO: 46 is identical to the nucleotide sequence that was used to create the RKS4-OX

overexpression lines (e.g., RKS4-OX1, RKS4-OX2, and RKS4-OX3), described in Exhibit B.

As described in Exhibit B, for example, on the first paragraph of page 1, plant cells were transformed with an RKS4 construct having the nucleotide sequence as set forth in SEQ ID NO: 46. The plant cells transformed with RKS4 exhibited, *inter alia*, increased cell elongation during organ formation of seeds, roots, and petals. See, for example, the sentence bridging pages 1-2 and figures 2a and 2e, which describe an increase in cell elongation and size in cotyledons from RKS4-transformed plant cells, compared to cotyledons from plant cells not transformed with full length RKS4.

Further development of the cotyledons from RKS4-transformed plant cells also resulted in an increase in size and shape of rosette leaves and large flowers, compared to leaves and flowers developed from cotyledons from plant cells not transformed with full length RKS4. See, for example, page 2, first paragraph, and Figures 2b and 2d. The increased size in petals was due to cell elongation. See, for example, page 2, first paragraph. Moreover, root length was observed to be increased in the RKS4-transformed plants, compared to plants that were not transformed with full length RKS4. See, for example, page 2, first paragraph of Exhibit B.

Applicants will be submitting an executed Rule 132 Declaration that attests to the above facts. For the foregoing reasons, Applicants submit that a method for increasing cell elongation during organ formation is enabled by the specification.

**Prior art**

Applicants respectfully acknowledge the examiner's statement that claims 28-33 were deemed free of the prior art.

**Conclusion**

In view of the foregoing amendments and remarks, entry of the amendments and favorable consideration of the claims are respectfully requested. If the examiner has any questions or concerns regarding this amendment, he is invited to contact the undersigned at the telephone number listed below.

If any fees are due or any over overpayment made in connection with this submission, please charge or credit our Deposit Account No.: 08-2461.

Respectfully submitted,

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